

MSR 145 Revolutionary mini Data Logger













The prize-winning MSR145 is the world's first miniaturised data logger to have integrated temperature, humidity, pressure, light and 3-axis acceleration sensors. An additional two or four analogue inputs are provided for connecting external sensors. This tiny multitalent stores up to 2 000 000 measured values – with an optional microSD card even over a billion measured values – and is also available as a sealed watertight version. Freely selectable measurement rates of up to 50 values per second guarantee uninterrupted documentation of rapid processes. For long-term measurements, the MSR 145 data logger has been fitted with a 800 mAh lithium polymer battery allowing you to easily record measured values over a period of up to two years.

The housing, the battery and measurement parameters, together with the type and number of sensors (internal and external) can be configured individually.

General technical data

Memory capacity:	Over 2 000 000 measured values – expandable to over 1bn measured values with optional microSD card.		
Push-button:	Set bookmark or start and stop recording.		
LED:	blue: Record indicator red: Alarm indicator yellow: Battery change indicator		
Power supply:	Lithium-polymer battery, 260 mAh or 800 mAh.The battery is charged via the USB connection.		
Options:	Charging station (USB hub) for 7 MSR 145		
Interface:	USB		
PC software:	Free Setup, Reader, Viewer and Online software (Windows XP / Vista / 7 / 8) to record and evaluate data. All measured values can be rapidly transferred to a PC via USB connection both during the measurement operation and once the measurement task has been completed. Thanks to the integrated clock (RTC), data from as many MSR 145 units as required can be synchronised and merged into a single data record.		
Operating conditions: Storage conditions:	 Temperature -20+65 °C Temperature +5+45° C (ideal storage conditions for the battery) 1095% relative humidity, non-condensing 		
Standards:	The MSR 145 complies with EU-Directives RoHS / WEEE.		

Housing and battery selection

Housing	Sheat material battery capacity	Picture	Size & weight	Medium
Standard IP 60	PC housing 260 mAh		20 x 15 x 52 mm approx. 16 g	Air
	PC housing 800 mAh		39x23x72 mm approx.56 g	
Waterproof IP 67	Silicon tube 260 mAh		18 x 14 x 62 mm approx. 18 g	Air, various liquids
	PC housing 260 mAh	Contair, 1	20x15x61 mm approx.23 g	
	PC housing 800 mAh		39x23x72 mm approx.64 g	-





External temperature sensor



Connector for thermocouples



External humidity sensor



External fluid pressure sensor



External light sensor

MSR Electronics GmbH Mettlenstrasse 6a CH-8472 Seuzach Switzerland

Tel. +41 52 316 25 55 Fax +41 52 316 35 21 info@msr.ch www.msr.ch

Distributor:

Selection of Sensors

Make an individual assembly of your MSR145 data logger and select the requested internal and external sensors (cable length 0.20 m, 1.0 m, 1.6 m).

Measured parameters	Working range	Accuracy	Measurement/ storage rate	
Temperature	ext.: -10+58°C	±0.1 °C (+5+45°C) ±0.2 °C (-10+58°C)	1/s to every 12h	
	ext.: -55+125°C	±0.5°C (-10+65°C) ±2°C (-55+125°C)		
	int.: -20+65°C	±0.5°C (-10+65°C) ±2 °C (-55+125°C)		
	ext.: 1 or 4 connect couples (excluding			
Relative humidity with integrated temperature	0100% rel. humidity ext20+85°C int20+65°C	±2% rel. humidity (1085%, 0+40°C) ±4% rel. humidity (8595%, 0+40°C)	1/s to every 12h	
Air pressure absolute, with integrated temperature	02000 mbar absolute ext20+85°C int20+65°C	±2.5 mbar (7501100 mbar absolute, +25°C)	10/s to every 12h	
	014 bar absolute -20+65°C	±50 mbar (1…10 bar absolute, +25°C)		
Fluid pressure (external sensor) Material in contact with media: • Stainless Steel	03000 mbar absolute -20+85°C	±30 mbar	20/s to every 12h	
AISI 316L (DIN1.4404/1.4435) • O-Rings: Viton® 70° Shore	030 bar absolute -20+85°C	±300 mbar		
3-axis-accelera- tion (static)	±15g -20+65°C	±0.15g (+25°C)	50/s to every 12h	
Light	065'000 lx	max. sensitivity at 500 nm	1/s to every 12h	

Additional analogue inputs for connecting third-party sensors

Analogue Inputs

Including alarm output and input for starting and stopping data recording.



2 or 4 analogue inputs with freely selectable input configuration: 0...20 mA; 4...20 mA; 0...3.0 V; 0.5...4.5 V; 0...5.0 V; 1.0...6.0 V; 0...10.0 V; 0...12.0 V; 0...24.0 V; **Resolution:** 12 Bit **Measurement/storage rate:** 50/s up to one sample every 12 h

Please contact us for prices and terms of delivery.